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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/048,686 03/26/98 REFAI

W P-4015.108/E

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WM02/0328

EXAMINER

RAO, S

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 03/28/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/048,686		REFAI, WAIL M.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Seema S Rao		2681	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory maximum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.134(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

**Attachment(s)**

- |   |  |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 20) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. Claim 8 recites the limitation "said broadband signal" in lines 10-11. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims **1, 4,-10, and 13-20** are rejected under 35 U.S.C. 102(e) as being anticipated by Sugital (U. S. 6,041,124).

Regarding claims **1, 8, 17, and 19**, the index channel information is anticipated by the index data in Fig.13B. The claimed limitation, "receiving and decoding the index signal at the receiving station". Selecting one or more information signals based on the index signal is disclosed in Fig. 13D. A receiver as in claim **19** anticipated by the mobile terminal device in Fig. 8 and in Fig. 9. A first signal processing and second processing means is anticipated by the elements 26, 27, and 28. A second processing means is anticipated by the elements 72 and 80. Control means for selectively activating second signal processing means based on the addressing information contained in index signal is disclosed in column 11, lines 36-43.

A broadband channel, as in claim 9, anticipated by the CDMA information channel in Fig. 12. The receiving means demodulating and decoding the first index signal in real time, as in claims 4 and 13, is disclosed in Fig. 5c, where index channel is received first and then the information packet is received. Primary data for later processing is being stored as in claims 5, 14, 18, and 20, is anticipated by the storage 51 in Fig. 8. Identifying a particular receiver and corresponding packets in the information signal, as in claim 6, is anticipated by the header comprising address of the mobile terminal device, in column 6, line 34. Packets in the index signal correspond to the packets in the primary data signal, as in claims 7 and 16, is anticipated by the receiving information index packet and subsequently receiving information packet as shown in Fig. 5C.

The relay station as in claim 8 anticipated by the cellular network in Fig.9. Retransmission of the information is anticipated by the retransmission of the index information as disclosed in Fig 9, from the cellular network element 61 to the mobile terminal device. A transmitting station, as in claim 17 anticipated by the base station unit of Fig. 12. A first and second transmitting means carrying broadband signals addressed to a particular terminal device are anticipated by the index information channel and traffic channel transmitting elements 72 and 73; 12 and 13; and 42 and 43. A plurality of receivers for receiving information from the transmitting station anticipated by the plurality of receivers as shown in Fig. 8, elements demodulators.

Start time of the information, as in claims **15 and 17**, anticipates the corresponding channel assigned to the information channel of a particular receiver, as disclosed in column 6, lines 51-63. This very well anticipates the start time.

4. Claims **1 and 3** are rejected under 35 U.S.C. 102 (e) as being anticipated by Saito (U. S. 5,914,947).

Regarding claims **1**, the index channel information is anticipated by the f1 frequency channel in Fig. 2. The claimed limitation, "receiving and decoding the index signal at the receiving station and selecting one or more information signals based on the index signal is disclosed in Fig. 2, element f2.. A first signal processing and second processing means is anticipated by the elements 42 and 48 of Fig. 8. Control means for selectively activating second signal processing means based on the addressing information contained in index signal is disclosed in column 5, lines 54-67 and column 6, lines 14-20. The index signal is transmitted at the same rate as the information signal, as in claim **3** is anticipated in column 7, lines 18 and line 44

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims **2, 11, and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugita (6,041,124) in view of Saito (U. S. 5,914,947).

The reference, Sugita, discloses all of the limitations of **2, and 11** however, it does not disclose the index channel being a narrow-band. The secondary reference, Saito, discloses a frequency band divided into f1 and f2 and f1 being used for the control information for the information to be accessed from the information on the frequency f2 band. However it is not taught that f1 is a narrowband. But it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frequency f1 to a narrowband channel carrying the control information. Motivation being low transmission cost because of low speed transmitter and receiver equipment.

The reference, Sugita, discloses all of the limitations of **12** however, it does not disclose the index channel and information channel are transmitted at the same rate. The reference, Saito, discloses transmission rate being same for both f1 and f2 frequency channel carrying control and information signal in column 7, line 18 and line 44, at 8.13Mbps.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the frequency f1 of Saito transmitted at the same rate in the system of Sugita to have a simultaneous transmission both control and information reducing delay in the receiver.

7. Applicant's arguments filed Jan 16, 2001 have been fully considered but moot in lieu of the new grounds of rejection.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seema S Rao whose telephone number is 703-308-5463. The examiner can normally be reached on 6.30-3.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on 703-305-4703. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6743 for regular communications and 703-308-6743 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9000.

Seema S Rao  
Primary Examiner  
Art Unit 2661

*Seema S. Rao*  
March 23, 2001